THE VETERINARY RECORD

A Weekly Journal for the Profession.

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

No. 1353. JUNE 13, 1914. VOL. XXVI.

THE INTERNATIONAL VETERINARY CONGRESS.

The arrangements for this Congress are now far advanced, and everything augurs success. The donation list still remains open, but enough has been collected to remove all fear of financial difficulties. Ample support—as much, indeed, as any British Government could be expected to give to a professional Congress—is being accorded by the State. The King has graciously consented to become the Patron of the Congress. The President of the Board of Agriculture is Chairman of a powerful Honorary Committee, which also includes the Lord Mayor of London, and the Ambassadors, Envoys, and Plenipotentiaries of the various countries represented at the gathering. Apart from the serious work of the Congress, a most attractive social programme has been prepared, full details of which will shortly be announced.

One other thing is now necessary to ensure a completely successful Congress, and that is a good attendance of members from the British Islands. A record attendance of foreigners is expected, but they will not be favourably impressed with our national *esprit de corps* if only a few of us assemble to meet them. In that case there might be a partial failure, which a good attendance will avert.

We have many other reasons for attending this Congress. Many of us cannot well attend it abroad, but most can here, and as it is not likely to meet again in England for many years, this is the chance of a lifetime to some. The time of year is as convenient as any for a holiday, and there are special travelling facilities. The railway companies will grant return tickets on excursion terms to members in Great Britain on the production of vouchers.

Members are therefore urged to attend the Congress and bring their lady relatives, registering the latter as external members. The fee for this—the "lady's subscription" is only five shillings—and only such ladies as are so registered will be admissible to the evening functions.

All the Governments whose veterinarians take part in the Congress are encouraging it through their diplomatic representatives in London. Our Government is doing as much for it as our national usage permits. And we veterinary surgeons in Great Britain and Ireland have already done more than veterinary surgeons abroad are ever required to do—we have succeeded in financing the Congress. Having done that, we must not fail to crown our success by a good attendance.

SARCOMA OF LIVER AND SPLEEN IN DOG.

The subject of the following case, a small sized Airedale terrier dog, was brought to me for treatment at the Government Dispensary, Nairobi, some time ago.

On casual examination one could observe marked distention of the abdomen, and ascites was suspected. But on palpation it soon became evident that the great enlargement of the cavity was due, not to dropsical fluid but to a large firm mass which was quite readily detected through the abdominal wall, and a tumour was diagnosed.

The mucous membranes were yellow, bowels constipated, and the appetite in complete abeyance. The animal was in an extremely weak and emaciated condition, which only tended to show up more clearly the pendulous and enormously distended abdomen.

According to the history as furnished by the qualified Indian Veterinary Assistant at the Dispensary, this animal had been brought at frequent intervals for treatment during the last twelve months for congestion of the liver and indigestion, and it was only during the last month that the abdomen was noticed getting gradually larger and more pendulous, and that ascites was suspected.

The appetite had never been too good, and the bowels were always more or less constipated.

As the prospects of a successful operation were remote, the painless destruction of the animal was advised, and to this course the owner reluctantly decided.

In order to satisfy myself that the condition was really hopeless, and that no permanent relief could be given, I prepared the site of incision and chloroformed the animal as for operation.

On opening into the cavity a large amount of blood-tinged serum escaped, roughly two pints. The incision being continued the spleen, enormously enlarged and nodulated on its surface, came to view, and so finally decided the destruction of the animal.

After death the cavity was laid open, and revealed the marked alteration in structure of the liver and spleen, as nearly the whole normal tissue of these organs was replaced by tumour tissue. Even the epiploon was invaded by myriads of small tumour-like bodies, evidently immature forms of the same neoplasm formation.

The liver and spleen weighed respectively 6¼ and 2 lbs.

On a piece of liver and spleen being submitted to Mr. R. E. Montgomery, Veterinary Pathologist,

for examination, he gave it as his opinion that the tumour formation was mixed celled sarcoma.

The rarity of the condition and the opportunity afforded of presenting the excellent photographs, which were taken at the time by Mr. R. J. Stordy, Chief Veterinary Officer, and which so clearly show up the lesions found on post-mortem, are the reasons for publishing the case.

W. W. HENDERSON, M.R.C.V.S., D.V.S.M. (Vict.)
Veterinary Officer.

Nairobi, B.E.A.

HYSTERIA IN A MARE,

Subject. A twelve-year-old Hackney mare with foal at foot, bred by the owner, had had four previous foals.

History. The mare was served on Thursday evening last, by a well known hackney stallion, the sire of all her previous foals, and the service seemed quite satisfactory. However, the stud groom advised the owner that she should be left at the stud overnight and be put to the horse again on the following morning. Early on Friday morning it was noticed that something was wrong, and assistance was sent for.

Symptoms. The animal was found to be very uneasy and apparently suffering great pain. The head was stretched out and the tail highly elevated. All the muscles of the frame were hard and tense, and the least excitement set them into tonic contractions. She grated her teeth persistently, and saliva ran freely from the mouth, as there appeared to be some difficulty in swallowing. An examination of the vagina revealed a highly congested condition of the mucous membrane, and the labia of the vulva were constantly opening and closing, each movement being attended by a desire to micturate. Now and again a small quantity of thick whitish urine would be ejected. The pulse was quick and irritable,

Treatment. She was put into a dark, quiet loose box with her foal, and given a liberal supply of water. No attempt to administer any medicinal agent was thought of, owing to the state of excitement of the animal when handled.

When again visited in the evening most of the urgent symptoms had passed off, although the grating of the teeth still persisted. On Saturday morning she was practically well again, and had begun to eat a little, and since then has shown no further signs of any excitement.

It is of interest to know that the mother of this mare, also the property of the above owner, exhibited similar symptoms two years ago, after being served by the same horse.

D. KEIR.

Market Weighton, Yorks.

GOVERNMENT PUBLICATIONS.—Messrs. Wyman and Sons, Ltd., official sale agents in England and Wales for Parliamentary papers and Stationrey Office publications have issued the following, post free. Board of Agriculture, Report of the Chief Veterinary Officer for 1913 price 3½d.

FATAL POISONING BY THE EXTERNAL APPLICATION OF OIL OF TAR.

The subject of this case was a black pony, aged about eight years, and about 14 hands high. The owner noticed two or three bare spots on the skin, and fearing lest the cause of these might be mange he decided to dress the animal all over with train oil. By mistake, however, *oil of tar was used instead of train oil.* The owner dressed the pony all over with the oil of tar, using in all about three pints. This was done at about 6 p.m. On his return to the stable at 7 p.m. the pony was found to be in great pain and blowing badly; it soon after fell down and was unable to rise again. I was sent for and saw the pony at about 8.30 p.m. The animal was then lying on its off side, all four limbs were stretched out and quite rigid, jaws tightly clenched, pulse imperceptible at submaxillary artery, there were frequent twitchings of the muscles of the trunk, consciousness was quite lost, no response being shown to the corneal reflex test.

Prognosis, naturally, was very unfavourable. I had the whole of the body well washed with soap and water, and then douched with cold water. Emollients were applied to the skin, stimulants given, and the pony then well covered with loose straw. Death, however, occurred in about three hours.

No doubt the poisoning was due to crude carbolic acid contained in the oil of tar. The chief points of interest in the case to my mind are:

1. The remarkably rapid progress of the poisoning.
2. The fact that there is sufficient acid in oil o tar to kill a horse in a few hours when applied to the skin in its crude state.

RALPH BENNETT, F.R.C.V.S.

Romford.

ABSTRACTS FROM FOREIGN JOURNALS

EQUINE EPIZOOTIC ABORTION.

K. F. Meyer and Fred Boerner report (*The Journal of Medical Research*, 1913) the results of their investigation of an outbreak of epizootic abortion amongst horses in Pennsylvania. They found the cause of the outbreak to be a bacillus belonging to the sub-group C. of the paratyphoid-enteritis group. They propose the name of *Bacillus abortus equi* for this organism.

This bacillus possesses all the properties of the bacteria that are classed in the paratyphoid B group; but can be distinguished from them by possessing the two properties of forming membraneous, dry, brittle deposits on sloping agar, and of ability to produce a considerable gas-formation in sugar. The *B. abortus equi* is only agglutinated by a paratyphoid B. serum or an enteritis serum in low dilution.

The authors found that abortion could be produced with cultures introduced subcutaneously,

intravenously, and intravaginally, and also by feeding, in a variety of animals, viz., one cow, one goat, one sow, and rabbits and guinea-pigs. The average period of incubation was fifteen days. The abortion bacillus of the horse is pathogenic for guinea-pigs, rabbits, mice, rats, and pigeons. The anatomical lesions resemble those of a paratyphoid infection. Rabbits are more susceptible than guinea-pigs.

Agglutination and complement-fixation can be regarded as useful methods in establishing an infection with the bacillus. Further investigations are required to explain the method of natural infection.—(*Berliner Tier. Woch.*)

Equine Muscular Rheumatism Complicated with Petechial Fever and Endocarditis.

Prof. Fröhner records (*Monatshefte für Prakt. Tierheilkunde*) this case of a horse. At the beginning of the illness the symptoms were vague, but after a few days one fore fetlock joint suddenly showed inflammation without demonstrable cause, the other fore fetlock followed suit two days later, and the diagnosis of articular rheumatism could be made. Hyperleucocytosis and considerable cardiac weakness were also present. The next day the right knee joint also became inflamed. Treatment by aspirin was instituted, and was followed by a reduction of the temperature, but the pulse rate remained high, and finally the appetite was destroyed. On the latter account sodium salicylate was then given *rectally* to the amount of 100 grammes (= approximately 3½ oz.) daily, with better results. The cardiac weakness and the tachycardia, however, still persisted. A few days later numerous petechiæ, ranging up to the size of a millet seed, appeared in the anterior part of the nasal mucous membrane. The pulse rate had risen to 100, but the sounds of the heart were still clear, without accessory sounds. The horse received petechial fever serum. Improvement now set in, and the inflammations of the joints disappeared. Suddenly, however, the horse died of cardiac paralysis. Post-mortem, an ulcerous endocarditis was found on the tricuspid valves, and a chronic fibrous endocarditis on the bicuspid valves, together with dilatation of the heart, blood stasis in the lungs, and pulmonary œdema.—*Berliner Tier. Woch.*

Septicæmia in Calves from the Meat Inspector's Point of View.

Luxwolda describes (*Tydschrift voor Veeartsenykunde*) the lesions which he observed in 62 calves affected with septicæmia. He arrives at the following conclusions:

The meat may be considered wholesome when the flesh and the intermuscular lymphatic glands contain coli bacteria, provided that the flesh has not a disagreeable odour and that the number of bacteria is not too considerable. The meat should be condemned when it contains paratyphoid bacilli, as they belong to the group of *bact. Gartner* or to the paratyphoid B. group. In this connection the author shares the views of Bugge and Franke. Other authors, Iunack in particular, think that only meat containing *bact. Gartner* should be condemned, because these germs produce toxins which resist boiling, while boiling renders the paratyphoid B. organisms inoffensive. Although this view may be sustained theoretically, the author nevertheless thinks that it might be dangerous to put it into practice. It should be remembered that the distinction between these two groups of germs can only be established by agglutination tests, which necessitate a good deal of time. Moreover, their toxic power and pathogeny for man and animals, as well as the particular conditions which modify that power, are as yet very little known. The author also thinks that there is a difference between the Gartner bacilli of the septicæmia of calves and the Gartner bacilli which are pathogenic to man, the first-named having little or no pathogeny for human beings. Up to the present, it is unknown whether there are any special influences capable of augmenting the toxicity of these bacilli for man, but it may be considered as certain that the agents capable of causing these flesh-intoxications are very variable and adapt themselves with facility to the media of different animals. In any case, the author thinks that it is necessary to be extremely prudent in the examination of calves affected with septicæmic conditions. A minute bacteriological examination alone permits a sound judgment to be formed.—*Annales de Méd. Vét.*

The Evolution of the Hypoderma Bovis.

Adrien Lucet, of the Laboratory of Comparative Pathology at the Paris Museum, reports (*R. C. Ac. des Sciences*) the result of investigations he has made into this question. The *Hypoderma bovis* causes enormous losses to agriculture by the damage it causes to the skins of cattle alone. The author's conclusions, commencing a survey of the life-cycle at the moment when the larva leaves the subcutaneous nodule it has formed, are as follows:—

1. In our climate (presumably the French climate —*Transl.*) the larvæ quit their subcutaneous refuge in May, June, and July.

2. The larvæ fall upon the ground, remain there at its surface, and are transformed into pupæ in from twenty-four to thirty-six hours.

3. The average duration of nymphosis is from thirty to thirty-five days.

4. The hatching of the perfect fly takes place at all hours of the day—not in the morning only, as is asserted in Germany. Hatching is accomplished in a few minutes, and the insect is ready to fly.

5. Among the enemies of the larvæ are small rodents, birds, insects, and even certain fungi (notably *Mucor*), which penetrate through the chitinous integument, vegetate upon the chrysalides, and destroy them.

6. It is easy to rear the larvæ in the laboratory at the ordinary temperature, either upon grass, or more particularly, upon a layer of cotton wool.

7. The fly is only encountered from the middle of June to the beginning of September. The average duration of its life is only from four to five days.

8. The eggs, which average 360 in number, are deposited by the female upon the *surface* of the skin and upon the hairs, to which they adhere.

9. The larvæ may easily be killed by once or twice injecting ½ c.c. or 1 c.c., of pure or diluted tincture of iodine into the parasitic nodules. Resorption takes place rapidly.—*Annales de Méd. Vét.*

POISONING BY OLEANDER LEAVES IN THE HORSE.

Leicht, of Isen, records the case of an eight-year-old heavy draught horse which, while waiting in front of a tavern, ate some oleander leaves growing near. The next day the animal showed loss of appetite, cerebral depression, and violent diarrhœa. The respirations were frequent and deep. The pulse was irregular and uneven, and counted 60 to the minute. The rectal temperature was 102 2° F. The day afterwards the condition grew worse. The pulse became almost imperceptible, the horse trembled violently upon the fore extremities, and there was frequent straining to defecate and urinate. The rectal temperature was now 104·5° F., the respirations were very frequent, peristalsis was very lively, the abdomen showed a moderate degree of tympany, and the mucous membranes of the head were bright red. Death took place forty-eight hours after the oleander leaves were eaten. The author says nothing of any post-mortem examination, and does not indicate the treatment he adopted. —*Münch. Tier. Woch.*

W. R. C.

SARCOSPORIDIN

Is the name of a toxin derived from sarcosporidia (Sarcocystis tenella) possessing lethal qualities for sheep, goats, and rabbits, white rats and sparrows. It produces paralytic symptoms and anaphylactic shock. In rabbits progressive doses result in immunisation, but of short duration.—*Cent. f. Bakt.*

F. E. P.

ANTI-ABORTION VACCINE EXPERIMENTS.

The results of a number of important epizootic abortion experiments which have been carried out in Oxfordshire were embodied in an interesting report presented to the Education Committee of the County Council. The report has been prepared by Mr. G. R. Bland (Staff Instructor in Agriculture), and deals with experiments carried out in 14 herds during the period 1911 to 1913.

The report points out at the outset that Oxfordshire is every year becoming more and more important as a milk-producing county. The extent of the industry may be realised when it is considered that in the year 1911 there were, according to the returns of the Board of Agriculture and Fisheries, 23,824 cows and heifers in the county; 16,390 of these animals were in milk. Supposing that the average annual yield of each cow in Oxfordshire is 550 gallons, there was produced in the year 1911 a total yield of 9,014,500 gallons. This quantity, valued at 8d. gallon, was worth no less than £300,483. Owing to the prevalence of "contagious abortion" and to the many requests for advice received as to the best methods to adopt for its prevention and eradication from herds, it had for a long time been felt that some carefully conducted trials of different methods were necessary. The Board of Agriculture offered to supply vaccine free of charge to inoculate cows in infected herds in Oxfordshire, the Local Education Authority employing veterinary surgeons to do the inoculation and undertaking to keep complete records of each animal inoculated. Many farmers were willing to try the treatment. In most herds two or three cows abort each year, and from inquiries made it would seem that there are very few herds in the county which have not suffered or are not suffering from contagious or epizootic abortion.

Fourteen infected herds were selected for the experiments and were chosen from the following groups; (1) Herds where above 20 per cent. of the cows aborted in the year previous to the beginning of the experiments, and where the disease had been prevalent for several years; (2) Herds where less than 20 per cent. of the cows aborted in 1910, but in which several of the cows regularly aborted each year; (3) Breeding herds, where practically no outside animals are brought into the herd; (4) Herds where very little rearing is done and in which cows are being continually brought in from outside.

There are no data available to calculate the loss due to this disease annually to the county. It would probably be greatly exaggerated if it were assumed that the percentages of abortion throughout the county due to this disease were equal to the results obtaining with the controls (*i.e.*, the uninoculated animals) in these herds, but if for the purposes of this report this assumption is made then the loss in the county would reach at least £30,000 per annum, even when the at present low value of 35s. per calf is taken and when the depreciation in market value of a cow which has aborted is taken at £5.

It is the opinion of several prominent Oxfordshire dairy farmers that the loss due to each case of abortion may be estimated at between £7 and £8.

In these experiments as 18 out of every 100 uninoculated animals (controls) aborted, the assumed number of cases of abortion per annum would be 18 per cent. of 23,824—the total number of cows and incalf heifers in county—*i.e.*, 4,288 cases of abortion. Taking the loss for each case at £7, the total loss would be about £30,000 per annum. No value has been assigned to the breeding value of the cow to the owner and to his loss when he is compelled to buy cows in order to keep the yield of milk up to his contract.

Even if not more than 10 per cent. of the herds are affected, and there is reason to suppose that this is a low estimate, the loss to the county must reach several thousands pounds per annum, and therefore anything that can be done to reduce this loss must be of great value to the dairy farmers.

Two methods of immunisation were tried:—

IMMUNISATION OF NON-PREGNANT COWS OR HEIFERS

"**Anti-Abortion A** is injected into non-pregnant heifers or cows two months before they are put to the bull in the hope that they will resist infection when exposed in a herd in which contagious abortion exists and carry their calves to full term. The anti-abortion is injected under the skin of the neck. Heifers are usually immunised, but any empty cows or heifers which have aborted or not, should be immunised. Twenty-five per cent. of the empty cows or heifers on such farms should not be immunised but left as controls, for it is by comparison of the after behaviour of the immunised and the unimmunised (*i.e.*, controls) that the value of the method is to be judged. If both methods—Anti-abortion A and B—are being tried on the same farm, 25 per cent. of the cows and heifers will act as a control to both methods.

Immunisation of Pregnant Animals.

Anti-Abortion B. Small doses are injected under the skin of the neck of pregnant animals monthly, the first injection to begin immediately they have ceased bulling after service, and the last during the seventh month of pregnancy. No first injection should be given later than the first month of pregnancy. Twenty-five per cent. of the cows and heifers on the farm should be left unimmunised as controls. If both methods are being tried on the same farm 25 per cent. of the total cows and heifers will act as a control to both methods."

Table showing the number of animals under treatment and how they calved :—

	Anti-Abortion A.	Anti-Abortion B.	Controls.
Animals	253	112	296
Heifers	70	0	51
Cows	193	112	245
Aborted	15	17	54
Barren	22	12	13*
Calved correctly	223	83	229

* At first 167 controls were left, and of these 13 were barren, but later the number of controls was further increased to 296—all uninoculated animals in a herd being taken as controls—and the total number of controls that were barren is not known.

The term "heifer" is here applied to all females up to the time of having their first calf, after which they are called cows.

The following is a summary of the results :—

Before experiments began (during 1910) 28·9 per cent. (*i.e.*, about 1 in every 4 animals) aborted.

After Anti-Abortion A treatment, 5·7 per cent. (*i.e.*, about 1 in every 18 animals) aborted.

After Anti-Abortion B treatment, 15·1 per cent. (*i.e.*, about 1 in every 7 animals) aborted.

Among the controls 18·2 per cent. (*i.e.*, about 1 in every 6 animals) aborted.

When it is considered that there was a tendency to inoculate all the animals it was thought most likely to abort, and that the animals under Anti-Abortion A treatment were on the average younger than those left as controls and therefore more likely to abort, the results are on the whole much in favour of the Anti-Abortion A treatment. In most of the herds it was the exception for a cow which had once aborted to be kept and bred from again. Altogether 66 cows which aborted in 1910 were inoculated.

The Treatment of Aborted Cows.

	Animals.	Aborted.	Barren.	Calved Correctly
Anti-Abortion A	43	2	12	29
" " B	13	6	2	5
Controls	10	4	4	2

The results on cows which aborted in 1910 were :—

Under Anti-Abortion A treatment, 4·6 per cent., or 1 in every 21, aborted again.

Under Anti-Abortion B treatment, 46 per cent., or 1 in every 3, aborted again.

Left as controls 40 per cent., or 1 in every 3 aborted again.

A great deal of trouble had been experienced on some of the farms before the trials began owing to the number of heifers aborting. On those farms where the trouble was the greatest most of the heifers were inoculated and very few left as controls.

"A" Treatment on Heifers.

	No.	Aborted.	Barren.
Anti-Abortion A	70	4	5
Left as controls	51	7	4

5·7 per cent., or 1 in every 17 of the heifers under Anti-Abortion A treatment, aborted.

13·7 per cent., or 1 in every 7 of the heifers left as controls, aborted.

In some general notes on the Oxfordshire experiments, Mr. Bland says no separation of the affected and suspected animals was attempted during the trials. The inoculation did not upset the animals to any great extent. On some farms the cows undergoing the B treatment gave slightly less milk at the night's milking on the day of the inoculation. Slight swellings were noticed in some cases after inoculation. The swellings disappeared in about three months. The A treatment has on the whole given better results than the B treatment. On those farms where the heifers had been aborting for some years, there were very few cases after inoculation with Anti-Abortion A, and on two or three farms where this trouble was the worst, not a single heifer aborted after inoculation. Of cows which had aborted before inoculation only 1 in every 21 aborted after the A treatment. It will be noticed from the foregoing results that there has been a sudden decrease in the number of cases of abortion among the inoculated animals on practically all the farms. If this had been an isolated instead of an average result, and had been true of the controls also, then it might have been put down to the disease wearing itself out on a particular farm, but this could hardly be the case at all 14 centres, for as mentioned before, the centres were chosen from farms falling into four very dissimilar groups. The animals under the Anti-Abortion A treatment have consistently calved better than those left as controls, even although the controls in most cases were chosen from older animals.—*Farmer and Stockbreeder.*

Report of the Veterinary Department of the Government of the Gold Coast for the Year 1912. [Abstract]

The staff sanctioned for the year was one veterinary officer, one veterinary dispenser, one dispenser pupil, and one 6th grade clerk, being no increase over the staff granted for the year 1911.

The dispenser pupil, Mr. Anyawuo, resigned and left on the 19th April. There was considerable difficulty experienced in filling this vacancy. Suitable youths who have passed Standard VI. or VII. would not come forward to undertake to learn this class of work at a salary of £24 per annum. The vacancy was, however, filled by an Ashanti youth named R. W. Kaye who has passed Standard IV.; he commenced his training on October 2nd. From the 19th of April to the 17th of September the available staff to carry on the technical work at headquarters was the veterinary dispenser.

Finance.—The approved estimates for the year were as follows: Colony £242, Ashanti £486, Northern Territories £486. Total, £1,214.

The approximate expenditure was about £714. The revenue collected during the year was £273 11s., which was paid into the local Treasury. Taking the approximate expenditure as £714, and the revenue collected as £274, it shows that the department cost the Government for the year about £440.

The work of the department has increased two-fold over that of previous years. The amount of correspondence and clerical work which has to be attended to by myself at times prevents me doing as much scientific work as I could wish.

The work carried out during the year has been (*a*) Teaching and training dispenser pupils; (*b*) Teaching farriery; (*c*) Daily inspection of horses belonging to Government officials; (*d*) Promoting better stable management; (*e*) Clinical work; (*f*) Veterinary inspec-

tion, Coomassie Town; (*g*) A study of the local cattle trade; (*h*) The daily inspection of imported cattle and the collection of Kraal fees; (*i*) The collection of statistics of the importation of live stock into Coomassie; (*j*) The inspection of animals for exportation from Coomassie; (*k*) The promotion of the hide, skin, and bone trade; (*l*) Inspection of horses and mules at Accra; (*m*) Inspection of cattle at Accra; (*n*) The study of contagious and infectious diseases together with an investigation of an outbreak of trypanosomiasis amongst horses and mules at Accra; (*o*) The study and collection of helminths affecting live-stock and poultry; (*p*) Blood work, examination of blood smears, blood counts, differential leucocyte counts, and hæmoglobin tests.

Horses and Stables, Coomassie.

In my annual report for the year 1909 I remarked on stable management, which I thought very necessary. The outcome of those remarks, which were adopted, has led gradually to a better management of horses and stables and in consequence the animals are in better health and condition. The period of life has been lengthened.

There are no Government stables in Coomassie. The existing 34 brick stables have been built privately by the officers of the Gold Coast Regiment.

No. 1 Stable 10 loose boxes built in January, 1910.
No. 2 „ 16 „ „ „ in Jan. and Dec., 1912.
No. 3 „ 8 „ „ „ in July, 1911.

The type of loose box is very satisfactory. The walls are of burnt brick, the ground area is 10ft. x 12ft., open in front with a 7ft. verandah; corrugated iron roofing; brick and cement manger and bucket stand on the floor. The floor is made of broken brick which is dug up and removed every six or eight weeks.

More loose boxes are badly needed, as the surplus horses have to be stabled in swish and grass stables, which are difficult to keep clean and rainproof. Outside, there are standings for every horse where grooming takes place.

Every stable is provided with a circular sand-bath 15 yards in diameter and surrounded by post-rails 7ft. high. The sand is river sand and not salty. Horses are put in these sand-baths every morning and night. The effect on their coats is excellent, and it also helps a horse to "dry off" more quickly after exercise.

All bedding is spread out in the sun all day to dry. Excellent straw is now being obtained from the trading firms, who have been good enough to allow officers to take away all that is available.

Food. Excellent dhoob grass is obtainable in sufficient quantity. It is not allowed to be cut before 10 a.m. in the dry season, or before 1 p.m. in the wet season. Immediately on being brought to the stables it is spread out to dry and not given to the horses till night time. No grazing is permitted before 4.30 p.m. at any time of the year, and then only if there has been sufficient sun.

Maize is the staple grain used here and on the coast. Comparing the analyses of maize with that of oats, which experience has proved is the best grain to feed horses on, maize is wanting in mineral salts, and also possesses a low nitrogenous ratio; for these reasons bran has been recommended to be added to the maize and is now being imported, and can be landed at Coomassie at 16s. 6d. per 112 lbs. A good mixture on which the horses do well on here is half maize and half bran—7½ lbs. to 10 lbs. of each according to the size of the horse.

Guinea corn is the staple grain north of the Volta. It is good feeding, the horses like it and I think highly of it. It can, however, only be purchased in small quantities at an excessive price in Coomassie. The analysis of this grain is not available at present.

Enquiries were made with a view to getting oats out, but the price proved prohibitive. A ton of best English oats landed at Seccondee would cost £16 13s. 4d. to which must be added 10 per cent. customs duty and railway freight (£5) Seccondee to Coomassie. If the Customs duty and railway freight were lowered for this commodity horseowners here would be prepared to import English oats. In the treatment of trypanosomiasis the condition of a horse is the main factor, and a food substance has to be given that can easily be assimilated, for in this disease a horse quickly wastes. I am of opinion that English oats would be a success, and I strongly urge the reduction of Customs duty and railway freight enabling it to be imported here.

The system of dividing the daily feed of corn into "two feeds" as is done at Accra is against all experience. Three is the fewest number of feeds the day's corn should be divided into, but four or five feeds are better, if it can be carried out satisfactorily.

Dung pits have been condemned and are abolished. Horseboys now carry all excreta and soiled bedding, etc., to the incinerators, where it is immediately burnt. This system has very markedly lowered the number of biting flies about (chiefly stomoxydæ).

It should be remembered that the horse is not a forest bred animal, but comes from the plains of the north, where the climate is totally different to that here. Coomassie is a town situated in a clearing in the Ashanti forest. To keep horses fit and well in a country like this, no deviation from the common rules of stable management should be allowed.

Farriery.—At the commencement of the year, the shoeing work was handed over to the Pioneer Company Gold Coast Regiment, but still has the supervision of the veterinary officer. The wear and tear of the unshod foot in this iron-stone country is tremendous. It is said that the average growth of the hoof of the horse is about four inches a year. The experience arrived at here on close observation is that the majority of horses in hard work require shoeing at the end of each month, the shoe being worn out at the toe; this means practically the wearing away of three inches of iron in comparison to the growth and wear of four inches of horn.

There are four farriers in Coomassie who were trained by this department. Their work improves with experience, so much so that when time expired they will be able to take their place at any of the towns where shoeing of horses and mules in transport work is adopted.

In the month of November two constables of the Northern Territories Constabulary arrived to undergo a course of training in this art. I am quite pleased with the progress they have made.

Clinical Work, Coomassie. At the close of the year there were 52 horses in the Military lines, 12 in the Hausa Zongo, and one in the town. There were also 3 mules in Millers Transport Department.

During the year two horses were anæsthetised with chloroform for surgical operations, one horse taking 4 ounces for the removal of a scirrhous cord, and the other taking 8 ounces for the operation of castration.

The number of cases treated was 151; of deaths was 15, five of which occurred in the Hausa Zongo; and of horses destroyed, 2.

The four diseases deserving some mention and remarks are paralysis (lumbar), pneumonia, trypanosomiasis, and verminous cachexia.

Paralysis (lumbar region) was very common in Coomassie before the advent of the Veterinary Department, and was feared more than any of the other diseases affecting horses. There are several diseases which cause paralysis of the hindquarters, but what is the precise cause of this disease here I cannot state as I have not seen a case. The characteristic symptom is stated to be a paralysis of the loins, which comes on suddenly,

and death occurs in a few days. The mortality here is said to be 100 per cent. There were three of these cases treated during the year, two of which were shot, and the other case was sufficiently cured to walk away and be sold; it, however, had a relapse and died two months afterwards.

Pneumonia. It appears that during the third quarter of the year there was an epidemic of pneumonia. The veterinary dispenser reported that five horses in one month died from this disease, three in the military horse lines and two in the Hauza Zongo.

Cattle Trade—Coomassie.

The trade in cattle from the French Territory north of the Northern Territories shows an increase over the trade done last year. There has been a slight decrease in the trade from the Ivory Coast. The trade in cattle indigenous to the Northern Territories is still very small; a reference to Table III. shows that there were 491 not humped cattle imported during the year. These cattle came part from the Northern Territories and about half of them came from the Ivory Coast and Banda District of Ashanti.

Several Moors from the Sus country have been noticed to be importing cattle from the French Timbuctoo district. Buying has been keen throughout the year, several buyers have come from Eastern and Western Akim, and also from the Saltpond district.

The price of live cattle fluctuated from £3 10s. to £9 10s. depending on the season, and the number of cattle in the market. A record price of £9 10s. for a bullock was paid by a Greek butcher during the year

Importation of Live Stock, Coomassie. The statistics kept show 63 horses imported during the year, but the number is believed to be something nearer 80.

In August, Millers Limited, Coomassie, imported four mules from the Canary Islands for their transport department. One of these was shot in September, the remaining three are still working. A Hausa mule was brought down from the Hausa country, and returned there with a load—it was a fine animal.

For the last three years it has not been usual for the kola traders to bring their donkeys as far as Coomassie; however, during this year several donkeys have come in.

There was one camel imported which lived for about five weeks. I regret to say he died at Mampon, having been ridden from Coomassie to Mampon a distance of 32 miles in one day.

The number of cattle imported for the year was 10,942 being an increase of 2,291 over the year 1911. During the year there has been a great improvement noticed in the condition of cattle on arrival here. In dealing with diseased cattle, *i.e.*, cattle suffering from extreme emaciation and in the advanced stages of disease, our old plan was to refuse admission; now we quarantine them. There were 21 cattle thus treated during the year and all died during the 24 hours period of detention. The greatest diplomacy is exercised when seizing these animals.

Table III. shows the number of cattle imported compared with the year 1911. They have been classed as humped and not humped. In the humped, or Zebu, two types have been noticed.

Type I.—known as Moshie cattle, is well known to the natives as a fast walker. The description of this type may be expressed as follows:—a leggy animal, with a long back, with poor sloping quarters; in consequence the tail is situated about a foot below the horizontal dorsal and lumbar vertebræ. The head is long and lean.

Type II.—comes fron a district which is said to be about a month from the Moshie district. The headquarters of this type is said to be at Douentza. This type is a stumpy animal with a short back, wide quarters, and the tail is situated a few inches below the horizontal dorsal and lumbar vertebræ. The head is short and broad. These arrive at Coomassie in better condition that the Moshie cattle. They are said to be very slow walkers.

The predominant shape of the horns in both types is the shape of the lyre. The colours are mixed with white predominating. It is rare to see a pure red, or a pure black, or a pure white; pure roans are fairly common The comparative weights of the two types are not given as there is no weighing machine in Coomassie that can accommodate the weighing of live cattle.

There are no statistics kept by this department of the number of sheep and goats imported into Coomassie; the staff at present at its disposal cannot spare the time to do so, as these animals come in at all hours of the day, and also by several different roads. The number is believed to be decreasing that is, if any reliance can be placed on the statements of the butchers who complain of the scarcity of sheep and goats for killing, and also that the Ashantis are buying these animals on the route down. The Ashantis are keen buyers, and their transactions are for ready money; this gives them a preference over the Mahomedan butchers, who buy and kill before paying. It appears that these purchases are more for breeding purposes than for killing as they are driven out of Coomassie.

There were 6 male ostriches imported during the year. One of these died here, and three were exported by road to Obuassie. The remainder are kept in a compound about 14 feet square, and are fed on the tops of the sweet potato, and dusa, a native bran. These importations are to supply an itinerant trade in feathers. Coomassie is not a suitable place for the rearing or keeping of ostriches, but ostrich rearing might be carried on profitably in the Northern Territories, especially in the Volta region. The price of an ostrich is about £3.

Exportation of Cattle, etc., from Coomassie. There was a great decrease in the number of cattle exported by railway to stations down the line. This decrease is attributed to the closing down of several mines and to the great reduction of staff at others.

Since the date when the rules governing this exportation came into force, on the 1st August (published in *Gazette* No. 22/1912) we have passed 1,137 head of cattle for exportation by railway and have rejected three head. The total number of cattle inspected for exportation was 1,510.

During the five months that these regulations have been in force we have passed 373 head of cattle for road exportation.

The trade in cattle by road exportation has greatly increased. It is to be regretted that all cattle exported in this way are not inspected, but we have not a large enough staff to carry out or strictly enforce the above regulations; however, we do insist on all cattle which are intended for the mines being presented to us before 10 a.m.

Several complaints were made to this office during the year concerning the irregular arrival of cattle trucks. It is a pity the railway department do not keep the cattle trucks at this end of the line. Cattle dealers and butchers cannot afford to keep cattle hung up here where there is a scarcity of good grazing.

The total number of sheep and goats passed for exportation by railway was 275.

Slaughter-house, Coomassie. The slaughter-house is under the control of the Medical Department. The veterinary dispenser paid 60 visits for the collection of specimens; the helminths found were the usual ones.

Hide, Skin, and Trade. The trade in hides from Coomassie during the year shows a great increase over the export of last year. There has been a boom in the English hide market which has naturally affected countries exporting hides. Owing to this activity in England the local price of sun dried hides advanced from 5½d. per lb. to 9d. per lb.

UMI

Last year the trade was practically in the hands of the Mahommedan community, but this year several of the cocoa and rubber brokers have also taken up this class of trade.

Three complaints were made to this department by merchant firms of the "doping" of hides. As these hides are bought by weight the sellers have turned their attention as to how they could increase the weight, and have done so by hanging them up and pouring water over them until they were saturated and then placing them in the mid-day sun to dry. This only renders the hide surface dry, and complete evaporation has not taken place and in consequence the hide is heavier than one dried in the ordinary way by slow process where complete evaporation has taken place. When a hide of this kind comes into the hands of the merchant it is stored away, waiting for shipment, and not being properly dried putrefactive changes take place in the hide. In the tanning process these blemishes come out and can be noticed.

The number of hides exported from Coomassie for the year was 20,370, as against 8,500 for the year 1911. Taking the average sun dried hide as weighing 12 lb., and at its present price, *i.e.*, 9d. per lb., this represents a local trade of £9,166.

Sheep and Goat Skins. According to the returns sent into this department there is a commencing trade in sheep and goat skins. These might be used in the manufacture of chrome leather and its imitations. The number exported from Coomassie during the year was 988.

Bone Trade. No available information is at hand whether any bones have been exported during the year. But during the last quarter one consignment of several sacks of horns was exported. The result of this experiment is as yet not known.

[Notes on inspection of stud of horses and mules at Accra used in transport work, and of cattle in the Accra district, are given].

Contagious and Infectious Diseases.

Anthrax. During the year there were three sporadic cases of anthrax at Coomassie.

Contagious Bovine Pleuro-Pneumonia. No epidemic of this disease as occurring in the Colony was reported to this department during the year. But we saw twenty-five lungs affected with pleuro-pneumonia in the Coomassie slaughter-house in the imported cattle. From information gathered from cattle traders it appears that this disease is gradually dying out in the French Moshie district, but is spreading to the cattle of the Coryanza district north of the Moshie territory.

Filariasis. Two cases of filarial infection were diagnosed in horses. One case at Coomassie and the other at Accra. Both specimens when stained appeared to be of the same species.

Piroplasmosis. Three blood smears prepared by the veterinary dispenser from cattle under suspicion and quarantined in our isolation pound show classical P. bigeminum.

Infectious Pneumo-Enteritis of Sheep or Pasteurellosis Ovina. During the month of August there was a serious epidemic of this disease among sheep and goats in the village of Christiansborg. On the 8th September I visited this village and found one dead sheep and four dead goats and post-mortemed one sheep and one goat. I examined all the sheep and goats in the village and detected four sick, two of which were killed, and the remaining two were isolated for the purpose of observation, one of which died the same night and the other on the 10th September.

Four post-mortems were made and the lesions observed were the same in all. There was pneumonia and enteritis, the heart showed petechiæ, and there were numerous petechiæ on the peritoneum covering the bowel and abdominal cavity, the mesenteric glands were swollen and hæmorrhagic, the livers showed fatty degeneration. The spleen was normal in size but the pulp was soft and easily broken.

Bacteriological Examination. Blood smears were prepared from the peripheral veins, heart, lungs, liver and spleen, and smears were made from the scraping of the mucous membrane of the bowel. The smears were stained with methylene blue, fuchsin, and giemsa. The organism found was a bacillus of the fowl cholera type which is always found in these so-called hæmorrhagic septicæmias. The smears prepared from two of the animals which were found dead were contaminated with the bacillus of malignant œdema.

The number of deaths reported during this epidemic was forty-four. One owner losing the whole of his flock of twenty-five sheep and goats.

Tetanus. One case of tetanus was observed in Accra in a newly imported Spanish mule; it was a case of infection of acne sores, by allowing this mule to roll on the ground.

Trypanosomiasis at Accra. During the year there was an epidemic of this disease among horses and mules at Accra. The history of the epidemic was furnished me by Dr. O'Brien, Medical Officer of Health, and is as follows:—During the month of May two mules belonging to the Accra Town Council were sick. Trypanosomiasis was not suspected until a report was received that there was a sick horse at the Victoria Hotel. Dr. O'Brien examined the blood of this horse, which showed a heavy infection of trypanosomes. Following on this he examined the blood of all the Town Council's mules and found four mules infected with trypanosomes. The above is the history of the true epidemic. But at the end of the month of May eleven horses were brought into Accra by the retinue of the late Governor. These horses were bought in the Northern Territories and had travelled through Ashanti along the banks of the River Volta, where they became infected. Ten of these horses died or were shot during the month of June.

Between July 30th and September 9th, I examined the blood of 83 horses and mules at Accra, the results were furnished in an Appendix to Quarterly Progress No. 10, and showed that I had found four horses and one mule infected.

The problem to be solved is, what was the source of infection for the four mules and one horse that Dr. O'Brien found infected, and the three horses and one mule I found infected (the mule was one of the mules of the Town Council).

A reference to the records of blood examination of cattle killed at the Accra slaughterhouse shows trypanosome infection existing among cattle there from the commencement of the year 1911. These cattle are derived from a herd kept by Hausamen and are replenished by breeding locally, and from the Addah district, with an occasional importation from the Northern Territories, French Soudan, and Togoland. Therefore this herd must be viewed as a reservoir for spreading trypanosomiasis.

The question now comes, how was the disease spread to the horses and mules concerned in the true epidemic. Authorities have found and all agree that the tsetse fly (*i.e.* Glossina) when infected can convey the disease to healthy animals through their bites. Before the advent of the railway, Accra was considered free from tsetse flies for a radius of four miles, but during the year tsetse flies have been caught within the neighbourhood of the railway station and the laboratory. During the six weeks I was working there I only saw one tsetse fly, which was caught, and identified by Dr. Donnal as a specimen of G. morsitans; however, these flies cannot be said to be common in the locality, in fact might be

considered a rarity. On searching for other blood sucking flies which are viewed as suspicious in the mechanical transmission of trypanosomiasis, I came across two species of Stomoxydæ and one specie of Lyperosia, these flies were very common, especially among the cattle, and they will always maintain an endemic form of trypanosomiasis among the local herd.

The evidence collected by myself *re* three of the horses infected, is interesting. Two of the horses belong to Hausa cattle owners; these Hausamen take no care of their horses and frequently ride them among the cattle, and it is most probable that they were bitten, and always will be bitten by infected flies which have flown off after a meal off infected cattle. The horse that Dr. O'Brien found infected at the Victoria Hotel originally belonged to a Hausaman, who gave it to the owner of the Victoria Hotel, this horse was in a dying condition when the exchange of ownership took place. The distance between the Victoria Hotel, where this horse was stabled, to the stables of the Town Council is about 30 yards, no great distance for infected stomoxys to fly, and it is most probable that this is what did occur, and that this horse was the reservoir for infecting the Town Council's four mules. The fourth horse is a horse belonging to a European, and was stabled behind his bungalow, around which stable I saw cattle grazing frequently, and here again it is most probable that this horse was bitten by infected stomoxys.

The species of trypanosome concerned in the true epidemic showed a marked morphological resemblance to T. cazalboui.

Experimental Work. On the 20th of August I inoculated four healthy animals with virulent blood from Kotey's bay pony No. 1. This pony is the sole survivor of the batch of 11 horses imported into Accra by the retinue of the late Governor. The result of my experiments were was follows:—

(*a*) Goat, grey female, well nourished, in kid about 11 months old. Injected intraperitoneal 2.5 c.c. blood. Trypanosomes first seen on 29th August. The goat aborted on 7th September, examination of the fœtus proved negative. The goat died on 2nd October, she lived 43 days after the date of inoculation.

(*b*) Dog, white male, well nourished, about six months old. Injected intraperitoneal 2 c.c. blood. Trypanosomes first seen on 2nd September. The dog died on 27th September, he lived 35 days after the date of inoculation.

(*c*) Guinea-pig, black, well nourished. Injected intraperitoneal 1 c.c. blood. Trypanosomes first seen on 2nd Septen.ber, and died on the 7th. This guinea-pig lived 17 days after the date of inoculation.

(*d*) Guinea-pig, white, well nourished. Injected subcutaneous 1·5 c.c. blood. Trypanosomes first seen on the 7th September and died on the 9th. This guinea-pig lived 19 days after the date of inoculation.

Morphology. The morphological characters of the majority of the trypanosomes seen in the smears prepared from this horse was a small trypanosome, its posterior end being in the shape of a pike head, a vacuole situated close to the centresoma, a feebly developed undulating membrane without a free flagellum, the nucleus was placed centrally and was oval in shape. In the blood smears prepared from the experimental animals (*a*) and (*b*) the undulating membrane was well developed showing on an average 1½ folds, and without a free flagellum. The majority of the trypanosomes from (*a*) i.e. the goat showed vacuoles, whereas in the dog and the two guinea-pigs no vacuoles were seen. The posterior end varied in shape.

The conclusion to be derived from these experiments is that the species of trypanosome infecting this horse is either T. congolense or T. pecorum.

Trypanosomiasis, Coomassie.

At Coomassie in treating these cases in horses we have had considerable success. Reference to the clinical statistics shows that twenty-eight horses were treated for this disease, out of which eight died. Of these deaths four occurred among the horses of the Hausa Zongo. The treatment laid down for the year was the combination method of treatment of atoxyl and orpiment. The procedure adopted was an injection subcutaneously of atoxyl 60-75 grains, depending on the size of the horse, on two consecutive days, followed by an interval of one day with no treatment, and then by the administration of orpiment 60 grains, given in a drench for three consecutive days.

This treatment is carried on for a month, but during the latter days of treatment the horse must be carefully watched for toxic symptoms of arsenic. To avoid this it has been our practice during the third and fourth weeks to carry out the treatment on a full stomach—the horse is fed with corn one hour before treatment. During this period the temperature must be taken morning and evening and registered on a chart, as the temperature chart is the guide for further treatment. After the first week of this treatment it is useless to examine the blood for trypanosomes as they are generally not to be found in the blood taken from the peripheral circulation. Our experience in acute cases is that, when a horse is handed over to us for treatment the temperature may be anything from 103°F—106°F. During the first month's treatment the temperature gradually comes down to about 100°F. in the morning, and 101°F. in the evening. In chronic cases the temperature is generally about 102°F., and at the end of the month's treatment the morning temperature is about 99°F. and the evening temperature about 101°F. Our second month's treatment generally consists in dropping the orpiment, and in its place treating any symptoms that appear, as example, if the horse is anæmic he is given iron and strychnine, if he has worms he is treated for worms, if he is inclined to be "liverish" he is treated for liver trouble.

The third month's treatment consists in the treatment of a convalescent patient by tenios and gentle exercise; if at the end of this month the temperature has been normal for about twenty-one days, the case may be discharged and put into hard work.

A liberal diet of corn must be given and it should be spread over into five feeds daily; should a horse absolutely refuse to eat its corn it must be fed with any of the following: eggs and milk, stout, Ghari (*i.e.* native flour and water), boiled sugar cane, boiled artichokes, boiled beans. As previously mentioned, diet and condition are some of the principal factors in the treatment of this disease. Unless a horse is in good condition it will not be able to stand the arsenical treatment.

Prophylactic Measures. As was shown in last year's report, the administration of some arsenical preparations in a tsetse fly district was of some use as a preventative against this disease. During the year we recommended a cheaper form of arsenical preparation than osudan, namely arsenic alb (white arsenic). Grains, 2-3 to be given daily when treking through fly country.

Helminthiasis.

During the last three years we have treated numerous cases of worms in horses. In the cases where worms have been found in the dung and have been treated successfully, these patients have been returned in our "Clinical Statistics" as cases of entozoa, whereas on the other hand when treated not successfully they have been returned as cases of verminous cachexia.

Verminous Cachexia. This disease comes on towards the end of the rainy season, and is liable to be

mistaken for trypanosomiasis. But frequent blood examination of the patients' blood reveals no trypanosomes. The blood does show a picture of anæmia due to the infestation of the stomach and intestines with both blood sucking and non-blood sucking helminths which are always seen in the subsequent post-mortem of these cases.

In our dispensary at Coomassie we have a good assortment of worm medicines, including arsenic, antimony, mercury, creosote, male-fern, thymol, turpentine, aloes, and linseed oil, none of which seem to be beneficial in these cases.

The post-mortem is remarkable for the fact that although the horse has been treated with worm medicines for about three weeks, and has passed hundreds of worms in the interim, yet countless numbers of worms are discovered in the post-mortem.

This disease, in my opinion, is caused by feeding horses on grass that has not been properly sun-dried, which is frequently the case during the rainy season. The remedy which suggests itself is to make hay, thus rendering the ovas of the different species of worms inactive. Several specimens of different species of worms were collected during the year and were presented to the Helminthological Laboratory of the London School of Tropical Medicine.

W. P. B. Beal, Veterinary Officer.

The Honourable the Principal Medical Officer, Accra.

DISEASES OF ANIMALS ACTS 1894 TO 1911, SUMMARY OF RETURNS.

Period.	Anthrax.		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks (a)	Animals.	Outbreaks (a)	Animals.	Outbreaks (b)	Animals.	Outbreaks (b)	Animals.	(b)	Outbreaks (a)	Slaughtered. *
IRELAND. Week ended May 30	...	...	1	11	...	...	Outbreaks 2		5	2	8
Corresponding Week in 1913 ...	...	...	...	...	...	...	4		4	7	41
Corresponding Week in 1912 ...	...	...	...	...	...	...	2		2	10	30
Corresponding Week in 1911 ...	...	1	...	...	...	...	...		3	...	12
Total for 22 weeks, 1914 ...	1	1	74	944	...	...	45		336	104	513
Corresponding period in 1913 ...	...	...	...	...	...	...	87		288	72	436
Corresponding period in 1912 ...	2	2	...	...	...	...	39		251	121	1150
Corresponding period in 1911 ...	5	6	...	...	1	2	38		239	49	828

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, June 3, 1914

Note.—The figures for the Current Year are approximate only. * As Diseased or Exposed to Infection

VICTORIA VETERINARY BENEVOLENT FUND.

The Annual General Meeting was held at 10 Red Lion Square, London, W.C., on Wednesday, June 3rd. At a well attended meeting there were present:—Sir John M'Fadyean, Sir Stewart Stockman, Messrs. H. A. MacCormack, S. H. Slocock, F. W. Garnett, S. Villar, G. A. Banham, W. J. Mulvey, J. Ward, A. Spicer, T. S. Price, J. Abson, Capt. Rees-Mogg, Professor N. Almond, G. Thatcher, William Shipley, and others.

In the unavoidable absence of the President (R. C. Trigger) Sir John M'Fadyean was unanimously requested to take the chair.

The minutes of the previous meeting were read and confirmed.

The annual report, which had been printed and circulated [see p. 789, our issue of June 6] was received and adopted.

Messrs. A. Spicer, H. Sumner, Sir Stewart Stockman, R. C. Trigger, S. Villar, and S. Wharam, who had been nominated for Council of the Fund, were declared elected.

It was proposed by Mr. Villar, seconded by Mr. Banham, and carried unanimously, that Mr. P. J. Howard be elected to the other vacancy on the Council, to fulfil the expressed wish of a further Irish representative.

It was proposed by Mr. Banham, seconded by Mr. Slocock, that the Auditors—Messrs. Woodger and Lark, be re-elected; this was duly carried.

It was unanimously adopted, on the proposition of Sir John M'Fadyean, that a hearty vote of thanks be given to the auditors for the great trouble and care they had taken with the accounts.

On the proposition of Mr. Gooch, seconded by Prof. N. Almond, and supported by the Chairman and other members, a hearty vote of thanks was recorded to the Hon. Sec. and Treasurer.

Alleged Negligence—Verdict for the Veterinary Surgeon.

At Hull County Court on Friday, June 5th, before Judge Fossett Lock and a special jury, Thomas Hill, mineral water manufacturer, of Hull, sued Frank Bradley, of 20, Charlotte Street, Hull, veterinary surgeon, for £99 6s. 6d., as damages for alleged negligence as his veterinary surgeon in respect of a bay hunting mare purchased by plaintiff on December 10th, 1913.

Mr. J. H. Payne appeared for the plaintiff, and Mr. Harry Wray represented the defendant.

The plaintiff alleged that the defendant on December 10th last, after an examination of the mare, negligently advised the plaintiff that the animal was sound, and was not suffering from corns, in consequence of which plaintiff purchased the animal for £130, whereas the animal had splints on both forelegs, corns on both forefeet, and spavins on both hocks, and was unsound. The particulars of claim set forth the price paid for the mare by plaintiff, £130; nine weeks' keep of the mare, £9; less net amount realised by sale of the mare by public auction, £39 13s. 6d.; leaving as the amount of the claim £99 6s. 6d.

The evidence for the defence was continued, and several witnesses were called to the effect that the mare was not constitutionally lame.

Frank Topham, blacksmith, of Coniston, deposed that he had shoed the mare and never saw any indications of corns.

Albert Roe, who for 14 years had been groom to Mr. Richardson, farmer, of Wyton, said that he remembered the horse being foaled. The horse was not constitutionally lame.

George Robert Simpson, a member of the Royal College of Veterinary Surgeons, practising in George Street, Great Driffield, deposed that on Tuesday, January 13th last, he visited the premises of the plaintiff, together with Mr. Bradley, for the purpose of making an inspection. The inspection was fixed for the 16th, and witness attended on that day with Mr. Bradley. Mr. Sowerby was also present. Witness was told that the horse was alleged to be wrong in the wind and had got spavins and splints. The mare was saddled and taken to a field and galloped for about a mile, but witness found no evidence that she was wrong in the wind. The mare did not grunt. In the opinion of witness, there were no spavins. The mare had good hocks. There were no curves. There was a little splint on each leg. The mare was not lame. On April 8th he saw the mare again, and some corns had been cut out previously, and had, in his opinion, been cut out about a week.

Lieut.-Col. Longhurst, F.R.C.V.S., veterinary surgeon, gave evidence that he examined the mare and found a slight corn under the heel on each foot. The animal was a little lame. There were small splints on the forelegs. A vein on the near hock was a little larger than the corresponding one, but there was not any unsoundness. The hocks of the animal were sound.

The jury found for the defendant with costs. They found that there was no negligence on the part of the defendant in certifying that the horse was sound on December 10th last. The jury did not find from the evidence that there was any unsoundness in the horse on December 10th.—*The Hull Times.*

A Tuberculous Cow—Conviction for Failure to Notify.

The first prosecution in Surrey under the Tuberculosis Order of 1913 took place on Saturday, at the Kingston-on-Thames County Police Court, when Owen Older, a dairy farmer, of West Molesey, was summoned for having in his care a cow suffering from tuberculosis with emaciation, and failing to give information to the police or to an inspector of the local authority, as required by the Tuberculosis Order of 1913. He pleaded "not guilty."

Mr. C. G. Sherwood appeared for the defence.

P.S. Parish said that on Tuesday, May 12, he went to a meadow known as America, adjoining Field Common, Walton, and saw an aged red cow, the property of the defendant, in a very emaciated condition, coughing frequently but feebly, and suffering very much from diarrhœa. Witness reported the facts, and the same afternoon saw Mr. Owen Older and told him that he was dealing with it as a suspected case of tuberculosis. Defendant said, "I have had two veterinaries to see it, and they said it was suffering from Johne's disease." On May 25 witness served a summons on him for failing to notify the case, and he said, "Very well, thank you, I thought it was Johne's disease."

Cross-examined, witness said the defendant might have said that he was carrying out the treatment recommended by the veterinary surgeons.

Mr. W. Caudwell, F.R.C.V.S., an inspector of the Surrey County Council for the Chertsey and Hersham Police Divisions, said he received a telephone message from the last witness, and accompanied him to the meadow, where he found an aged shorthorn cow in milk and in a very emaciated condition. Witness made a full examination of the cow, and found crepitation in both lungs and disease of the udder. Witness formed the opinion that it was suffering from an advanced condition of tuberculosis, and its condition was such as to have suggested to anyone familiar with cattle the existence of tuberculosis. Witness at once sent notice of slaughter, and afterwards made a post-mortem examination at which the defendant had the opportunity of being represented, but did not avail himself of it. Witness found that the animal had suffered from miliary tuberculosis of both lungs, and of long standing. There was also tuberculosis of the glands and intestines, and disease of the udder which was not of a tuberculous character. He had received no notice of the case from the defendant.

Cross-examined by Mr. Sherwood, witness said that in his opinion any veterinary surgeon who examined the cow must have known that it was suffering from tuberculosis, and it was his duty equally with the defendants to have reported the case.

Mr. Sherwood, for the defence, said his clients were dairy farmers in a large way of business and owning a great number of cows. At the end of January this cow was seized with illness, and Mr. Older called in his veterinary surgeon, who prescribed for it, and said it was suffering from Johne's disease. Defendant could not do more than carry out the advice of the veterinary, and he isolated the cow in a meadow where there was a good feed of grass, and gave it also hard food. Defendant would have had the cow destroyed at once if he had suspected that it was suffering from tuberculosis, but he had not the slightest idea that it was suffering from that disease.

Defendant Owen Older was sworn, and gave evidence bearing out his solicitor's statement.

In answer to Superintendent Marshall, defendant admitted that from the end of January to May 12th no veterinary surgeon had seen the animal.

Mr. J. W. Whitecross, veterinary surgeon, said he examined the defendant's herd on the previous day, and thought it was one of the finest in Surrey.

Mr. T. S. Payne, veterinary surgeon, of Hersham, said he was called in by the defendant on January 4th to see the cow, which was suffering from diarrhœa, and he prescribed for it. Since January 9th he had not seen or heard anything of the animal. He only examined it casually, and saw no evidences of tuberculosis. There had been ample time since for the development of tuberculosis.

The Bench decided to convict, and the defendant was fined £5 and £1 14s. 6d. costs.

Cruelty Charge Dismissed—Costs Allowed

Mrs. Anne Cheesman, fruiterer, 42 East Street, Epsom was summoned for working a horse in an unfit state.

Inspector White, R.S.P.C.A., stated that as the horse appeared lame in the near fore leg he stopped defendant, who was driving it, and she said that the animal knocked one of its knees a few days previously. Witness examined the horse and found that the lameness was slight and of a temporary nature. Underneath the saddle, however, was a large wound, apparently an abscess, and when witness touched it the horse went down on its knees in acute pain. When he asked defendant why she was working the horse in such a condi- she said, "It's had a bad back, but we thought we would cure it."

Alexander Piesse, veterinary surgeon, stated that when he went to put his hand on the horse's back it cringed,

but he was told that this was its habit. There was a swelling on the back.

Defendant stated that the horse was very nervous as the result of a fire, and always flinched whenever anyone touched it. It knew her, and she could harness it without any trouble.

Mr. Talbot, veterinary surgeon, corroborated defendant's story as to the animal's nervous condition, and stated that it was so nervous that a stranger probably would not be able to harness it.

The Magistrates viewed the horse, and on returning the Chairman remarked that everyone was liable to make mistakes. In this case there was nothing the matter with the horse as far as they could see, and they dismissed the case.

Defendant asked for costs. She had had to hire a horse and bring the veterinary surgeon there that day.

The Magistrates allowed costs, £1 13s which the Society would have to pay.—*Mitcham Advertiser.*

Sale of a Shorthorn—Tuberculin Test.

In the King's Bench Division, on Wednesday, May 27, before Mr. Justice Rowlatt, Mr. James Charles Lewis, Duncote Hall, Towcester, Whittlebury, Northamptonshire, sued Lord Burnham for 115 guineas, the price of a shorthorn cow, which was sold by plaintiff to Mr. Richard Spencer Britten, as agent for Lord Burnham, on Oct 24 last.

Defendant refused payment on the ground that the cow had failed to pass the tuberculin test. Plaintiff, on the other hand, maintained that the condition of sale that the cow should pass the tuberculin test was subject to that test being made before the animal was taken away from Whittlebury.

Mr. Spencer Bower, K.C., and Mr. Grimwood Mears (instructed by Mr. Bertram Sturt) were for the plaintiff, and Mr. Pollock, K.C., and Mr. G. M. Hilbery (instructed by Messrs. Henry Hilbery and Son) represented the defendant.

Opening plaintiff's case, Mr. Bower said that the cow in question, "Duchess of Bartlow IX.," in the catalogue which appeared as "Lot 21"—(Laughter)—was sold by auction by Mr. Webb, of Messrs. John Thornton and Co. on Friday, Oct. 24. and on Monday, Oct. 27, the animal was delivered to defendant. About Dec. 12 defendant purported to reject the cow, which plaintiff refused to take back. Defendant set up that there was a condition that where a purchase was effected at over 80 guineas the animal should pass the tuberculin test. This meant, according to defendant, that he would have the right, without giving notice to plaintiff, to have at his own place at any time and by any person, any tuberculin test, and if the cow failed to pass the test he could reject the animal. Plaintiff admitted that there was a condition that anybody who purchased any of the animals on the day of the sale should have the option of a tuberculin test, provided he made arrangements for that purpose and got the test applied at the farm before the animal was removed. If that was the condition, defendant had not complied with it, because Mr. Britten gave an unconditional order for delivery on the Monday, pursuant to which the cow had been delivered. A month after the sale defendant made up his mind to reject, having had that horrible mass of tuberculosis—

Mr. Justice Rowlatt: Don't harrow us. (Laughter).

Mr. Bower added that there was a counter-claim for the keep of the cow. He wanted to know what had been done with the milk.

Mr. Pollock replied that the milk had been run down the drain. The Burnham herd was rather a good one, and tuberculous milk would not be knowingly sold.

Mr. Justice Rowlatt: Might not you give it to the pigs?

Mr. Pollock: Then you would produce tuberculous pigs. (Laughter).

Mr. Justice Rowlatt: I can't understand how any man or any animal is alive at this period of the world's history. Laughter).

Plaintiff said that as no test was made at his farm he assumed that Mr. Britten did not wish to have a test made.

Cross-examined by Mr. Pollock, plaintiff said that a good deal was heard from some people about tuberculosis in cattle, but he did not attach much importance to it. If the test had been made at his farm, and the cow had reacted, the sale would have been off.

Mr. Webb, senior partner of Messrs. John Thornton and Co., stated that he had written to Mr. Britten, offering to have the test made at Whittlebury, but he had no authority from plaintiff to do so.

Among other witnesses were three who made purchases, and who said that they heard the auctioneer mention that purchasers could have the tuberculin test, but that it must be made at plaintiff's farm.

Mr. William Bateman, one of these witnesses, expressed the opinion that in the North of England 70 per cent. of the dairy cattle would fail to pass the test, but he did not think that mattered very much. If they had to run down the drains all milk which failed to pass the test they would get on very poorly.

Mr. Justice Rowlatt: You will want a new and expensive drainage system. (Laughter).

DEFENCE.

Mr. Pollock submitted that plaintiff had failed to make out a case. Here was a definite agreement made with plaintiff as to stock about eighty guineas before the sale began, and Mr. Britten would tell his lordship that no term was imposed that the test should be at Whittlebury as part of the condition, or that there was in any way any limitation. It was perfectly reasonable that the test should be at Whittlebury, and no doubt that was the place at which it ought to take place. Still, the test was to be a condition of the sale.

It was quite clear that defendant should have the test, and that, although it was reasonable that the test should take place at the farm, it was, by mistake, not held there, and when the cow reacted in the test there was no sale. Therefore defendant was not bound to take the cow at the price of 115 guineas or at all.

His Lordship remarked that that was not a great price for a cow.

Mr. Pollock said he had known a bull calf go to 700 guineas.

Mr. Bower suggested that it might be possible to cure a cow of tuberculosis.

His Lordship asked whether the cow should be sent to a health resort in the Alps for a cure. (Laughter.)

Mr. Pollock said that to imagine Lord Burnham was endeavouring to get out of the bargain merely for £10 was quite out of the question.

Mr. Justice Rowlatt: As a matter of fact, I think it is irrelevant.

Mr. Britten gave evidence in support of Mr. Pollock's statements. His conversation with Mr. Lewis took place before the luncheon in the cowhouse.

Mr. Justice Rowlatt: The conversation, not the luncheon, was in the cowhouse? (Laughter).

Mr. Britten added that plaintiff said he would give the test for animals for which over 80gs. was paid. Witness did not take particular note of what the auctioneer said about the tests, because he (witness) had already made the arrangements with plaintiff. He was very particular about the test. After the cow arrived on the Monday afternoon he wrote a letter in which he said he presumed the animal had been tested, for otherwise she would not have arrived by that time. After the test had been made at Hall Barn by Mr.

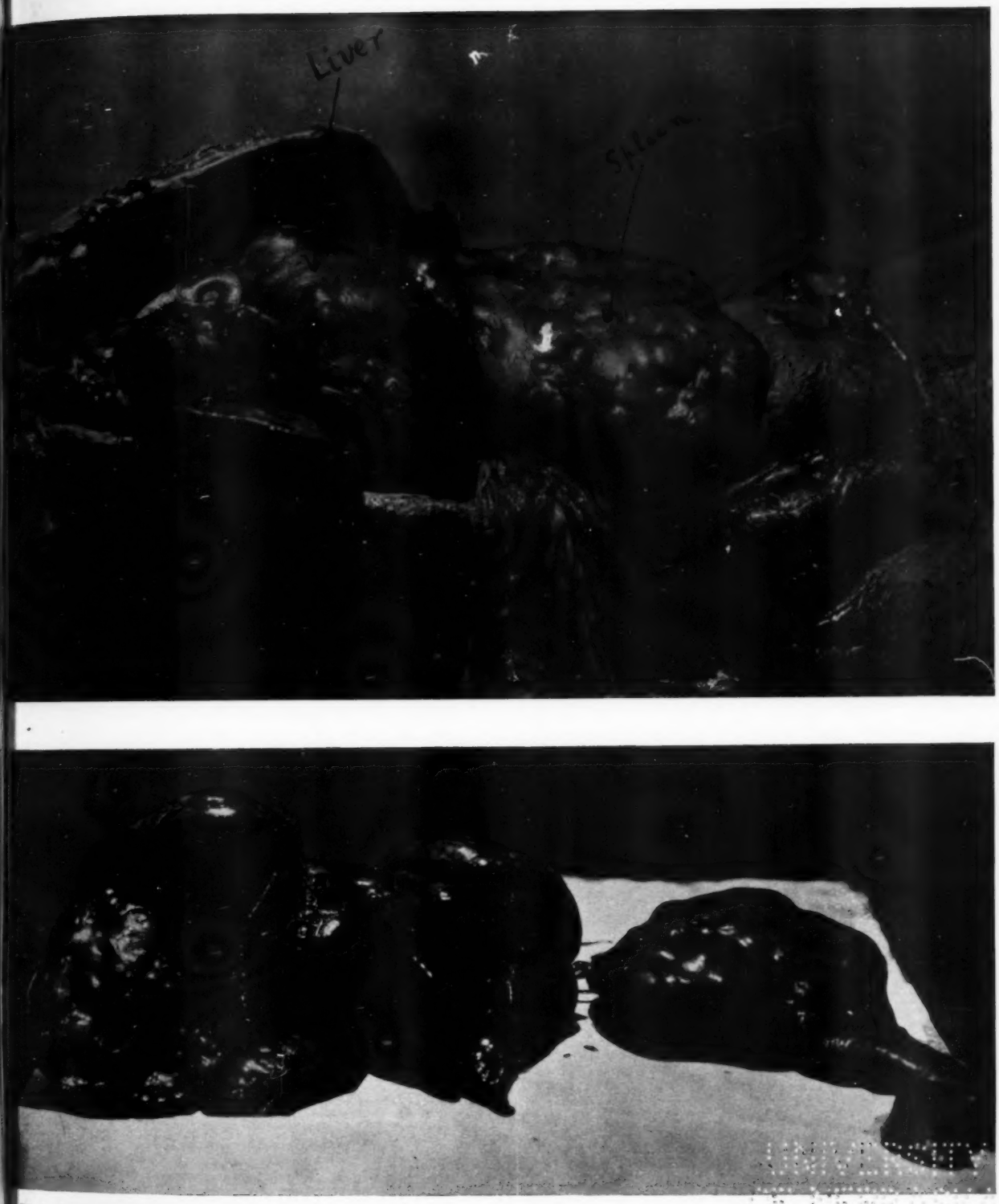

Photo. by R. J. Stordy, C.V.O.

SARCOMA OF LIVER AND SPLEEN IN DOG.

Illustrating note by W. W. HENDERSON, M.R.C.V.S., D.V.S.M.

Walker, veterinary surgeon, he did not think it would be a good thing to use the milk. The cow was not put with the herd, but was isolated.

Cross-examined by Mr. Bower, witness said he did not hear plaintiff say that the test was to be made at the farm, but he was not prepared to deny that plaintiff said that.

Mr. F. P. Matthews, a partner in the firm of Messrs. John Thornton and Co., who was present when Mr. Britten and plaintiff met, stated that he heard plaintiff say he would give a test for any animal bought for 80gs., but he did not hear words "at Whittlebury."

Mr. Manuel, veterinary surgeon, of Wolverhampton, said that on the instructions of the auctioneers he went to examine the cow, in addition to others, at Whittlebury, on the Monday, but the animal had been sent away before he went there. He was of opinion that the tuberculin test was a right test, and was very important.

Mr. Bower: Whether you can get tuberculosis through drinking milk is another question. You say it is conclusive in all cases?

Witness: It is not exactly invariable, but it is perfectly reliable.

Mr. Justice Rowlatt: The condition here was not for that fact, but for the test.

After hearing speeches by counsel, his lordship said he would give judgment next morning.

JUDGMENT.

Mr. Justice Rowlatt said he came quite clearly to the conclusion that the bargain was that there should be a tuberculin test if any animal was knocked down to Mr. Britten at over £80. Prima facie, his lordship could not see any ground for supposing that the test should be anywhere but at Whittlebury, and from the correspondence that prima facie view was corroborated. As soon as the question arose plaintiff and Mr. Webb (the auctioneer) took that position, and it was really never contested by Mr. Britten in the correspondence. Mr. Britten gave a delivery order which simply said: "Deliver this cow by rail on Monday," the sale having taken place on Friday. That did not bind him until it was acted upon. It certainly could not be said that the terms of the delivery order could be cut down by the terms of the sale note so as to make it read: "Deliver on Monday, provided there has been a test." Therefore it came into the hands of plaintiff's bailiff as a perfectly open delivery order, and the bailiff was bound to act upon it unless it was countermanded.

His lordship did not think that it was premature to send the cow on at nine o'clock in the morning, and he was sure the bailiff acted in perfectly good faith. The legal effect was that Mr. Britten did not waive his right to a test, but simply did not exercise his option, and therefore the contract became absolute. It was also said that it was plaintiff's fault that the cow was not tested before being sent off on the Monday. It seemed to his lordship that the testing was a matter entirely in defendant's hands, and that plaintiff had no initiative in the matter.

Clearly the auctioneer had no higher degree of authority than his principal to meddle with the matter and it was clear that he acted simply in a good-natured way to facilitate business when he wrote to Mr. Britten suggesting that the cow might be tested on the Monday by the veterinary surgeon who was to test other animals. Unfortunately the letter got to Mr. Britten late on Saturday night, and he took no steps.

The real truth was that Mr. Britten did not realise that the veterinary surgeon would not have got there on the Saturday—whether he ought to have realised it or not did not matter—and therefore that the terms of the delivery order would bring the cow before she had been tested. That was the unfortunate thing that had happened. The trouble was due really to Mr. Britten himself, because he had given the delivery order and had not thought out the situation and taken steps to make sure that there was to be a test before the delivery order took effect. It was his affair to see to that, and unfortunately he jumbled it. In these circumstances plaintiff must recover.

Judgment was entered for plaintiff for 115gs. on the claim and on the counter-claim (for keep, etc., of the cow), with costs.—*Daily Telegraph.*

PARLIAMENTARY.

MILK AND DAIRIES BILL.

In the House of Commons on Tuesday, June 9.

Mr. HERBERT SAMUEL (Yorks, Cleveland) formally moved that this Bill be now read a second time, [See our issue May 16th, p. 750, and May 23rd, pp. 753, 767].

Mr. C. BATHURST (Wilts., Wilton,) supported the second reading, He said agriculturists did not welcome restrictive legislation, but they realised that it was inevitable in the face of public opinion. They desired, however, that producers should not be penalised in respect to offences after the milk had left their possession. He believed the dangers of dirty milk were minimised as much as those of tuberculous milk were exaggerated. During the summer months a large proportion of infantile mortality was due to the effect of dirty milk, but with regard to tuberculous milk he held that it had yet to be proved that bovine and human tuberculosis were identical or interchangeable. He recognised that the right hon. gentleman had endeavoured to treat the producer with as much fairness as was possible in the circumstances, and that the Bill compared favourably with all of its four predecessors. Apparently it was provided that medical or other officers of urban authorities, who were the authorities for the areas of consumption, were not to attempt to invade the areas of production. He hoped that in Committee amendments making this quite plain would be accepted. There was, he understood, to be no interference with the structure of cowsheds, and for this he thanked the Government, for nothing was more likely to reduce the production of milk or to increase its cost than interference with the premises in which cattle were housed. He suggested that the presence of the veterinary surgeon employed by the owner of the cattle should be permitted when animals were inspected by officers of the local authority. This would be only fair to the producer. He thought that the expenses of administering the Bill ought to be borne by the Exchequer, the service being in the nature of a national service as human health was involved, but he urged that in any case it should be made clear that half of the entire expense would be defrayed out of the Exchequer and that not more than half would fall on the local authorities. The Central Chamber of Agriculture, the British Dairy Farmers' Association, the Central Land Association, and other agricultural organisations were unanimous in asking the House to accept the second reading of the Bill and in hoping that it would not be drastically amended in Committee.

Dr. ADDISON (Hoxton), said that the Bill would introduce for the first time something like unanimity in administration. It would be administered by the officers of the larger authorities, who would be in the main well trained and experienced and would avoid placing harassing and futile restrictions on the milk producers. He associated himself with the suggestion that, in some form or other, there should be a system of certification of the quality of milk. The indirect effect of such a system would be vastly more important in improving the general quality of the milk supply than

the Bill itself, because, if the milk were graded as it was in New York, people would begin to inquire why grade A was different from grades B and C, and there would be created a public opinion in favour of clean milk.

Mr. FORSTER said that they would, he thought, make a great mistake if they were to divide against the second reading. This Bill would do something to check the sale of impure milk, but it would not make it cheaper or more plentiful, and he was not at all sure that it would not rather encourage the importation of foreign milk than the development of the home supply. With the development of preservatives, it was quite possible that the importation of foreign milk might grow to an extent that none of them would desire. He regretted that the Bill did not do something to assist the farmer to obtain immunity from disease in his cattle.

Mr. ASTOR (Plymouth): The first clause was entitled "The prohibition of the sale of tuberculous milk." It was difficult to make a calculation as to the amount of tuberculous milk in London, but it was something like 10 per cent. They could not afford to wipe out 10 per cent. of the milk supply of the country. He would like to see the clause amended so that there would be a regulation of the sale of contaminated, tuberculous, and dirty milk, and a gradual lifting up of the whole supply. Clause 1 had another danger. It said that a seller should not knowingly sell tuberculous milk. That opened an awful possibility of litigation.

It seemed to him the first step they wanted to make was to classify milk according to its quality, and then gradually to try to improve the quality of uncertified milk. The great advantages of certification, or grading, were that it established a standard of purity; the public knew what it bought. It was impossible suddenly to produce pure milk without diminishing the supply, but classification and certification would make it possible gradually to improve the supply without diminishing its quantity or raising the price. Grading had been tried on a voluntary basis in a large number of areas in this country. In his own constituency the local sanitary officer circulated periodically among the big consumers of milk a list of the dairy farmers and milk producers who submitted themselves to a special inspection, and the system worked satisfactorily without raising the price of milk.

He regretted that the President of the Local Government Board had not provided in the Bill for the licensing of milk sellers. The old system of registration of milk sellers was condemned without qualification by the Irish Milk Commission in their final report of 1911. The Commission pointed out that the local authorities had no power to refuse registration on the ground that the applicant's premises were unsuitable, and that procedure by prosecution in the case of offences was cumbrous, uncertain, and possibly ineffective. Only the other day the Carnarvon County Council prosecuted some milk sellers for selling dirty milk, and the fines of 10s. each imposed by the magistrate were set aside at quarter sessions on the ground that the offence was a technical one. The county council were thus put to the expense of £60 without result.

Mr. BARNSTON (Cheshire, Eddisbury): The right hon. gentleman had produced a Bill dealing with admittedly a very difficult and delicate subject on fair and sound lines, and if those lines were adhered to, he promised him a good deal of support from the Opposition side of the House.

Mr. STANIER (Shropshire, Newport) pressed for an assurance that the Bill would be strong enough to deal with the contamination of the London milk supply while the cans were being handled *en route*.

Mr. HILLS (Durham) appealed to the Government to codify all the existing Acts dealing with milk.

After further debate,

Mr. HERBERT SAMUEL thanked the House warmly for the reception given to the Bill. The methods in the Second Schedule for arriving at the really guilty person by tracing the milk back had been criticised, but those methods were now in force in Manchester and were a great success.

He agreed that it was essential so far as they could to maintain the cheapness of the milk supply, and this Bill would be a mischievous Bill if it had the effect of sending up the price and rendering less of it available to the poorer classes. He did not believe it would do so. The regulations they had in mind would not involve cost but care. Care and cleanliness need not be costly. He had not in mind expensive alterations to cowsheds all over the country—(cheers)—and other ideal measures. It had been urged that the county authorities should be given powers instead of the district authorities. It must, however, be borne in mind that there was already legislation dealing with this matter and under the Diseases of Animals Act it was the district councils which appointed the veterinary officers and inspected cattle. With regard to the expenses of local authorities, if the whole cost of paying the salaries of officers was thrown on the Exchequer they must necessarily become officers of a central Government Department. In the Finance Bill of this year it was proposed that half the salaries of public health officers should be paid out of public funds, and it was intended that that term should include veterinary officers. He recognised the force of the contention that it was desirable to codify the older Acts, but one had to consider Parliamentary exigencies. If, however, there was any general desire, he would be very glad after the passage of this Bill to introduce a new Bill of a codifying character without making any change of legislation, but bringing all legislation on the subject into one statute.

He was much disappointed by the speech of the hon. member for Plymouth. With his interest in public health he thought the hon. member would be more likely to complain that the Bill was too much watered down than that it was too stringent. He agreed with the hon. member that they must improve gradually. He would remind the hon. member that Clause 3 and the First Schedule were in substance the model milk clauses which now existed in a hundred local Acts of Parliament. The hundred boroughs which had obtained powers under those Acts would certainly not be prepared to give them up without some substitute for them. It would be impossible to carry through the House of Commons any Bill which swept away all these local statutory powers and substituted no similar law of a general character in their stead.

Nor was the proposal for licensing milk sellers likely to find favour in the House. Desirable as it would be in many ways, it would give rise to much Parliamentary opposition. He had little donbt that the milk traders—and they were powerful—would soon make their voice heard if any attempt were made to establish a licence system for the sale of milk, as there was for the sale of alcoholic liquor.

He did not, however, view with any spirit of hostility tht hon. member's proposal for establishing a system of graded and certified milk and protecting the producers of certified milk from the competition of others who might seek wrongly to use the term "certified milk." All he said was that that was not a substitute for the proper regulation of the whole milk supply, though it might be a useful supplement. He was quite content to leave that to discussion in Committee, and if it appeared that the proposal to have regulations made for protecting those who chose to sell certified milk—not making it obligatory, of course—and for penalising those who wrongly claimed the title "certified milk" com-

mended itself to the Committee he would be quite ready to be guided by the opinion of the Committee.

Sir F. BANBURY criticised Clause 2, which, he said, would enable the President of the Local Government Board to make regulations which need not lie 40 days on the table of the House by calling them "Special Orders." He also asked what Clause 9. which allowed sanitary authorities to establish and maintain depôts for sale of milk for infants, had to do with the provision of pure milk. That was a matter of municipal trading. As nothing was said about price, local authoritics might be induced to sell milk considerably under cost price In that case, what was to become of the trader?

The Bill was read a second time.

MILK AND DAIRIES (SCOTLAND) BILL.

On the motion for the second reading of this Bill,

Captain GILMOUR (Renfrewshire, E.,) on behalf of Scottish agriculturists, welcomed the Bill, but intimated that there were various points upon which amendments would be suggested.

Mr. MCKINNON WOOD (Glasgow, St. Rollox) stated that the Bill was the result of conferences with the Chambers of Agriculture in Scotland and others interested in agriculture, and was to a large extent an agreed Bill. At the same time he promised to give to Committee points sympathetic and open-minded consideration.

The Bill was then read a second time.—*The Times.*

THANKS TO ELECTORS.

To the Fellows and Members of the Royal College of Veterinary Surgeons.

Gentlemen,

I beg to tender my most sincere thanks to those gentlemen who supported me at the recent election of Councilmen of the Royal College of Veterinary Surgeons.

I shall welcome any suggestions which have for their object the advancement of our profession from any of the Fellows and Members and they may rely upon my giving them full consideration with a view of bringing the same before the Council.—I have the honour to be, gentlemen, your obedient servant,

J. CHARLES COLEMAN.

Swindon, Wilts. June 6.

Dear Sir,

Allow me, through your columns, to thank those gentlemen who have so generously accorded me their support at my four elections to the Council. I am particularly grateful because I have never sought the support of any Society, but have trusted solely to the individual members of my profession to vote for an absolutely independent and unbiassed candidate to that august body.—I am, gentlemen, your obedient servant,

GEO. A. BANHAM.

Dear Sir,

Please permit me through your columns to return my very sincere thanks to all those who so kindly voted for me at the recent Council election. I only hope I may prove worthy of their confidence.—Yours faithfully,

P. J. HOWARD.

Ennis. June 8.

ARMY VETERINARY SERVICE.

Extract from *London Gazette.*

WAR OFFICE, WHITEHALL, June 5.

REGULAR FORCES. ARMY VETERINARY CORPS.

Capt. E. Brown to be Major. Dated June 2.

TERRITORIAL FORCE. ARMY VETERINARY CORPS.

W. G. Thompson to be Lieut. Dated May 18.

His Majesty the King held a Levée at St. James Palace, on Wednesday, June 10. The following Noblemen and Gentlemen attended:—

* * *

Vet.-Major W. A. Pallin.

Lieut. J. Scott Bowden, Welsh Division T.F., has passed for promotion to Captain in subjects B 2, 3, 16 Territorial Force Regulations.

OBITUARY

Dr. J. R. Green.

We regret to announce the death of Dr. Joseph Reynolds Green, Fellow and Lecturer of Downing College, who passed away on Wednesday, June 3rd, in his 66th year. His sister, with whom he had lived for many years, died about a fortnight ago.

Dr. Joseph Reynolds Green was the son of Mr. Daniel Green, of Bedford, and a brother of Mr. George Green. He was born in 1848 at Stowmarket, Suffolk. After a private education, he entered Trinity College in 1881, and graduated in the First Class National Science Tripos, Part II. (in Botany and Physiology) in 1884. He took his M.A. in 1888, and his Sc.D. in 1894, and was elected a Scholar of his College. He held the post of Senior Demonstrator of Physiology in the University from 1885 to 1887. In 1890 he was the Rolleston Prizeman (Oxford). Dr. Green was elected Fellow of Downing College in 1902, and and in the same year he became President of the Botany Section of the British Association. From 1887 to 1907 he was the Professor of Botany for the Pharmaceutical Society of Great Britain. He also held the post of Hartley Lecturer in Vegetable Physiology in the University of Liverpool. He was a Fellow of the Royal Society. Dr. Green was the author of several books on botany and vegetable physiology.

Dr. Green always took a keen interest in religious and social work in Cambridge, and was for many years a deacon of Emmauuel Congregational Church. Though he never took an active part in politics, he was a consistent Liberal. He was a well-known Mason, and had held many offices.

Many prominent residents and members of the University attended the funeral service at Emmanuel Congregational Church, on Saturday afternoon.

The interment afterwards took place in Trumpington Churchyard.—*Cambridge Daily News.*

[Dr. J. R. Green, M.A., F.L.S., D.SC., acted as an examiner for the Diploma of Membership R.C.V.S., 1893—1906. He will be remembered by many who were then students].

Mr. P. F. F. TAYLOR, V.S., Urmston, Manchester, died on May 21st from acute pneumonia. Aged 62 years

DISEASES OF ANIMALS ACTS 1894 TO 1911. SUMMARY OF RETURNS.

Period.	Anthrax.		Foot-and-Mouth Disease.		Glanders.†		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Out-breaks (a)	Animals.	Out-breaks (a)	Animals.	Out-breaks (b)	Animals.	Out-breaks (b)	Animals.	(b)	Out-breaks (a)	Slaughtered. *
GT. BRITAIN. Week ended June 6	9	9			2	2	31	56	1	118	1223
Corresponding week in 1913 ...	11	11			5	7	31	57		60	830
Corresponding week in 1912 ...	11	11			4	6	34	84	1	83	1249
Corresponding week in 1911 ...	9	12			5	9			2	65	824
Total for 23 weeks, 1914	401	427	11	74	42	88	1299	2336	145	1888	19149
Corresponding period in 1913 ...	293	315			79	226	1533	3139	129	1051	15323
Corresponding period in 1912 ...	465	519			77	159	1993	4444	162	1570	19980
Corresponding period in 1911 ...	431	527	1	18	96	257			302	1140	12380

(a) Confirmed. (b) Reported by Local Authorities. † Counties affected, animals attacked: London 2.
Board of Agriculture and Fisheries, June 9, 1914

IRELAND. Week ended June 6	...	...	1	9	...	...	Outbreaks 1	1	3	35
Corresponding Week in 1913 ...	...	...	...	...	...	...	1	3	3	19
Corresponding Week in 1912 ...	...	...	...	...	...	...	...	1	3	25
Corresponding Week in 1911 ...	...	...	...	...	1	1	2	1	2	3
Total for 23 weeks, 1914 ...	1	1	75	956	...	...	46	337	107	552
Corresponding period in 1913 ...	...	...	...	...	...	...	88	291	75	455
Corresponding period in 1912 ...	2	2	...	...	...	...	39	252	124	1175
Corresponding period in 1911 ...	5	6	...	...	2	3	40	240	51	831

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, June 8, 1914
NOTE.—The figures for the Current Year are approximate only. * As Diseased or Exposed to Infection

CORRESPONDENCE.

COLONIAL APPOINTMENTS.

Sir,

The very pertinent letter signed "East of Suez," which appeared in your issue of the 28th of February last was read with great interest by many members of the profession in the various Colonial services.

The inadequacy of the supply of suitable candidates for civil veterinary appointments at home, in the Colonies and India is no doubt partly due to the reduction in the numbers of young men now entering the various Colleges and completing the course as compared with fifteen or twenty years ago, but the dearth of candidates for some Colonial appointments is largely due to the position occupied by the veterinary service which "East of Suez" rightly describes as "an off-shoot of another Department." In this connection I enclose the minutes of a meeting of veterinary surgeons held in Bulawayo in April last. A copy of the same was forwarded for the consideration of the Council of the Royal College of Veterinary Surgeons, and the Secretary replied that the matter had received the attention of the Parliamentary Committee and he was instructed to state that "as the Departmental Committee on the Public Veterinary Services had already completed their report, the Committee felt that they could not profitably take any action on the resolution." I am not aware of the composition of the Committee referred to (the Public Veterinary Services Committee), nor have I seen the terms of reference on the subject, but it seems somewhat strange that in regard to the Colonial Veterinary Services more extended enquiries were not made amongst members who have spent the whole of their professional lives in the Colonies. No doubt the Committee did make some such enquiry, but as far as I know not a single member of the profession in Southern or Central Africa was consulted or afforded an opportunity of expressing his views.

As there will probably be a large number of Colonial veterinary surgeons at home for the International Veterinary Congress, I venture to suggest that a conference be held, and the matter of Colonial appointments, conditions of service, etc., be considered.—Yours truly,

J. M. SINCLAIR, M.R.C.V.S.

Salisbury, S. Rhodesia. May 18.

Sir,

I see an advertisement in May 9th issue, where the Colonial Office is hard put to it for professional men. It may be of use to our professional brethren to insert the following.

The East African Protectorate vacanies are partially caused by *death*. Mombasa is not Brighton. None of the appointments are plums.

Young members, or members who contemplate applying should consult the Colonial Office list for information of Colony.

The ultimate aim of every official is for pension. The nicer the bait (salary) the nastier the hook (appointment). Pensions are computed on the number of years service, and 1-60th of salary per year's service is the rule in most colonies. After ten years a man may claim 10-60th of his salary as his pension, but the Government may hold you for thirty years from time of admission. Resignation loses all pension. Q.E.D.—Yours truly,

ONE IN IT.